

Notice of Allowability

Application No.

10/588,270

Examiner

BABAR SARWAR

Applicant(s)

IGUCHI ET AL.

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 08/04/2006.
2. ☒ The allowed claim(s) is/are 1-9.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 08/04/2006
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 09/21/2010.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

/KAMRAN AFSHAR/
Primary Examiner, Art Unit 2617

/BABAR SARWAR/
Examiner, Art Unit 2617

DETAILED ACTION

Drawings

1. The drawings were filed on 08/04/2006. These drawings are accepted.

Information Disclosure Statement

2. The information disclosure statement filed on 08/04/2006 has been considered and placed in the file of record.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and / or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. W. Douglas Hahm Reg. No. 44,142 on 09/21/2010. Claims 1, 7-9 have been amended as follows;

1. (Currently amended) A receiving device that performs reception in a service period of a broadcast signal and switches to a power saving mode in an on-service period, the service period being composed of a first period during which an application data table is transmitted and a second period, following the first period, during which ~~an~~ the Reed-Solomon (RS) data table is transmitted, comprising: a receiving circuit ~~operable~~ configured to perform reception in the first period to obtain the application data table, and perform reception in the second period; an error correction unit ~~operable~~ configured to selectively perform first correction that uses the whole RS data table and

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second correction that uses a part of the RS data table, to correct a bit error in the obtained application data table; and a switching unit ~~operable~~ configured to, when the bit error is corrected as a result of the error correction unit performing the second correction, switch to the power saving mode before the second period ends.

7. (Currently amended) An integrated circuit included in a receiving device that performs reception in a service period of a broadcast signal, for executing control of switching to a power saving mode in a non-service period, the service period being composed of a first period during which an application data table is transmitted and a second period, following the first period, during which ~~an~~ the Reed-Solomon (RS) data table is transmitted, characterized by: switching to the power saving mode before the second period ends when, among first correction that uses the whole RS data table and second correction that uses a part of the RS data table, the receiving device performs the second correction.

8. (Currently amended) A program used in a receiving device that performs reception in a service period of a broadcast signal, for having a CPU in the receiving device execute control of switching to a power saving mode in a non-service period, the service period being composed of a first period during which an application data table is transmitted and a second period, following the first period, during which ~~an~~ a Reed-Solomon (RS) data table is transmitted, characterized by: having the CPU switch to the power saving mode before the second period ends when, among first correction that uses the whole RS data table and second correction that uses a part of the RS data table, the receiving device performs the second correction.

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9. (Currently amended) A receiving method that performs reception in a service period of a broadcast signal and switches to a power saving mode in a non-service period, the service period being composed of a first period during which an application data table is transmitted and a second period, following the first period, during which ~~an~~ a Reed-Solomon (RS) data table is transmitted, comprising: a receiving step of performing reception in the first period to obtain the application data table, and performing reception in the second period; an error correction step of selectively performing first correction that uses the whole RS data table and second correction that uses a part of the RS data table, to correct a bit error in the obtained application data table; and a switching step of, when the bit error is corrected as a result of the error correction step performing the second correction, switching to the power saving mode before the second period ends.

Allowable Subject Matter

4. Claims 1-9 are allowed.

5. The following is an examiner's statement of reasons for allowance: Claims 1-9.

With respect to claims 1, 7-9, Laiho (U.S. Pub. No. 2003/0153369 A1) is the closest prior art to the application invention which teaches systems and methods that periodically remove power from at least some components of mobile terminals.

Streaming or bursty content is transformed into bursts of content having a bandwidth greater than the original content. Power may be removed from receiving modules in between time periods in which the bursts of content are received. Relative timing information regarding the timing of bursts may be included in the bursts. The use of relative timing information allows mobile terminals to remove power from receiving

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modules without requiring strict synchronization with a broadcast source and the calculation of latency delays (See Laiho e.g., Figs. 2, 4-5, and ¶ [0005], ¶ [0024], ¶ [0030]- ¶ [0032]).

However, the prior art of the record fails to disclose singularly or in combination to render obvious that a receiving device that performs reception in a service period of a broadcast signal and switches to a power saving mode in an on-service period, the service period being composed of a first period during which an application data table is transmitted and a second period, following the first period, during which a Reed-Solomon (RS) data table is transmitted, comprising: a receiving circuit configured to perform reception in the first period to obtain the application data table, and perform reception in the second period; an error correction unit configured to selectively perform first correction that uses the whole RS data table and second correction that uses a part of the RS data table, to correct a bit error in the obtained application data table; and a switching unit configured to, when the bit error is corrected as a result of the error correction unit performing the second correction, switch to the power saving mode before the second period ends.

Vesma (U.S. Pat. No. 7,508,839 B2) teaches a method for encapsulating at least one data packet includes fitting at least one data packet into at least one column of an application data table of an array that also includes a coding data table having at least one column. Then, at least one remaining column of the application data table is filled with padding, and coding data is fit into at least one column of the coding data table of the array. At least one column of coding data is punctured based upon a comparison of

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a bit rate of incoming data packets and a threshold bit rate, with at least one column of coding data remaining after puncturing the column(s) of coding data. And after puncturing the column(s) of coding data, the data packet(s) in the column(s) of the application data table, and the at least one remaining column of coding data, are encapsulated. Vesma further teaches that the encapsulating method is capable of reducing variation in the size of an array, such as an MPE-FEC frame, that includes an application data table part and a coding data table part. By reducing variation in the size of the frame, then, the method can reduce variation in the subsequent encapsulated data stream (See Vesma e.g., Figs. 6-7A-B, 9 and Col. 2:23-67, Col. 3:34-52, Col. 8:12-31, Col. 10:4-26).

However, the prior art of the record fails to disclose singularly or in combination to render obvious that a receiving device that performs reception in a service period of a broadcast signal and switches to a power saving mode in an on-service period, the service period being composed of a first period during which an application data table is transmitted and a second period, following the first period, during which a Reed-Solomon (RS) data table is transmitted, comprising: a receiving circuit configured to perform reception in the first period to obtain the application data table, and perform reception in the second period; an error correction unit configured to selectively perform first correction that uses the whole RS data table and second correction that uses a part of the RS data table, to correct a bit error in the obtained application data table; and a switching unit configured to, when the bit error is corrected as a result of the error

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correction unit performing the second correction, switch to the power saving mode before the second period ends.

Any comments considered necessary by the applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement or Reasons of Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BABAR SARWAR whose telephone number is (571)270-5584. The examiner can normally be reached on MONDAY TO FRIDAY 09:00 A.M -05:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NICK CORSARO can be reached on (571)272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BABAR SARWAR/
Examiner, Art Unit 2617

**/KAMRAN AFSHAR/
Primary Examiner, Art Unit 2617**